Purple Card Regulator Studies

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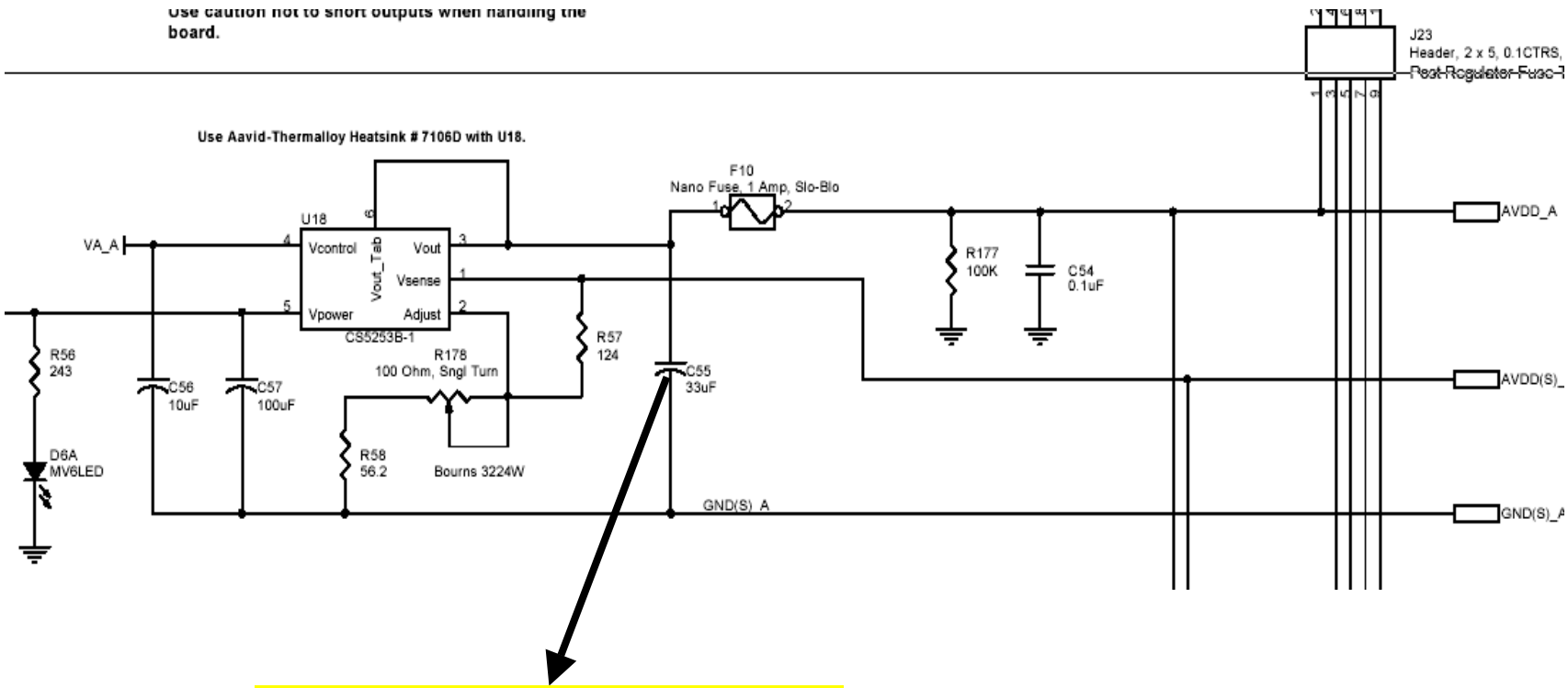
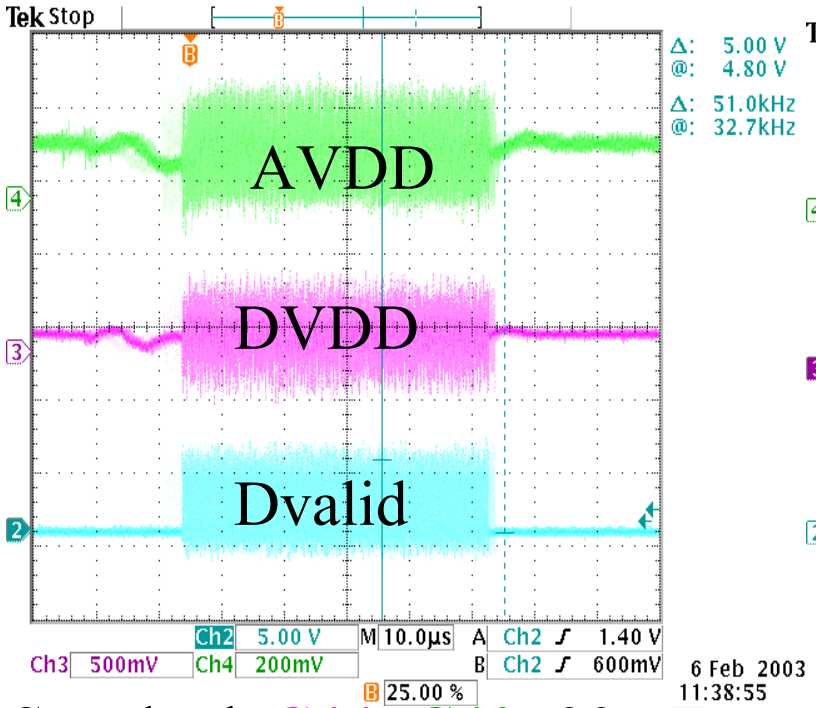
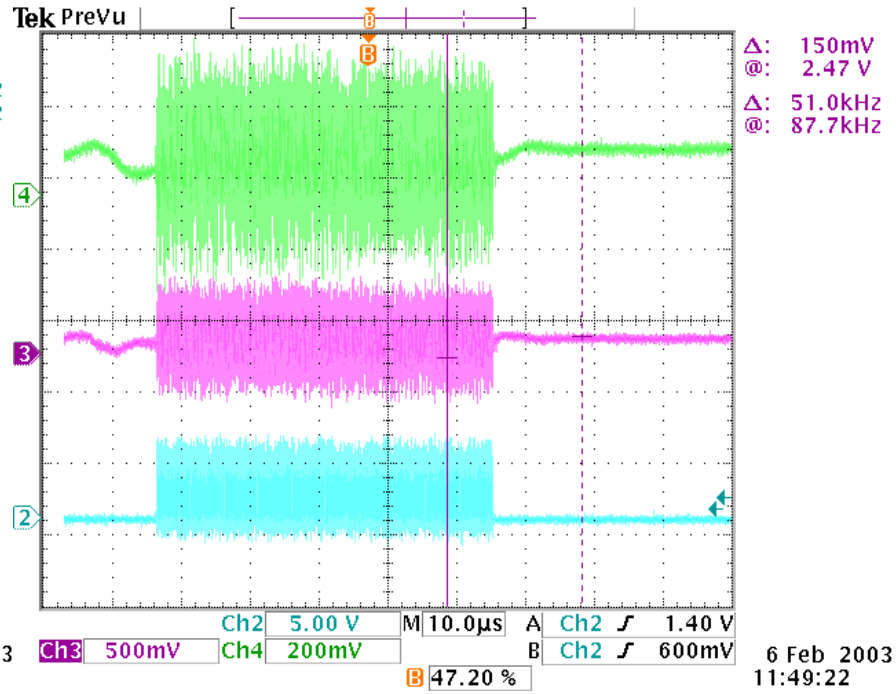
- Test conditions:
- Measure AVDD, DVDD at J40 on channel B of purple card, with 10 chip hybrid.
- Vary C40, C44 which are (tantalum) filter capacitors across output of voltage regulators.
- Measure average SVX4 total, and differential noise.
- No interesting effects noted.

Volt Regulator schematic



Change this guy for both AVDD and DVDD: try 0, 33, and 100.



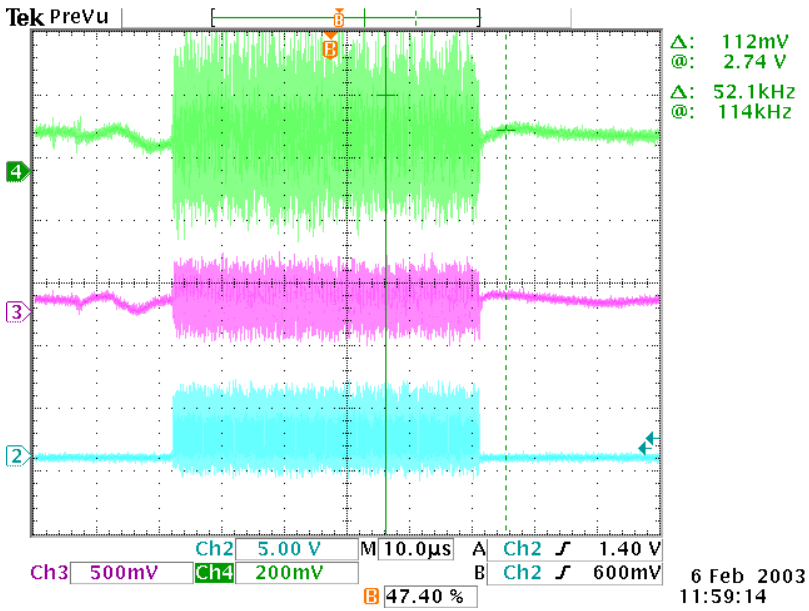


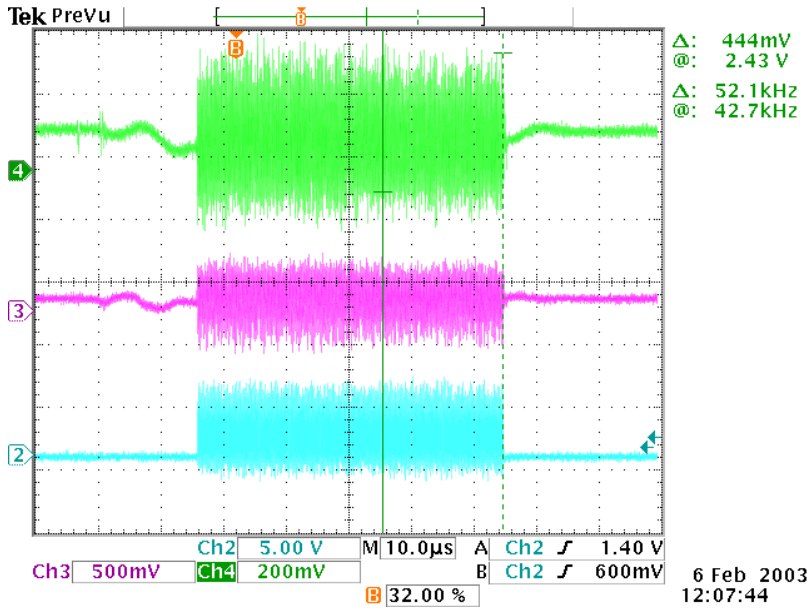
Standard. C44=C40=33 µF

Tot noise= 1.02 counts

Diff noise= .63

- C44= 0; C40= 33µF
- Tot noise= 1.04
- Diff noise= 0.64





C44= 100µF, C40=33

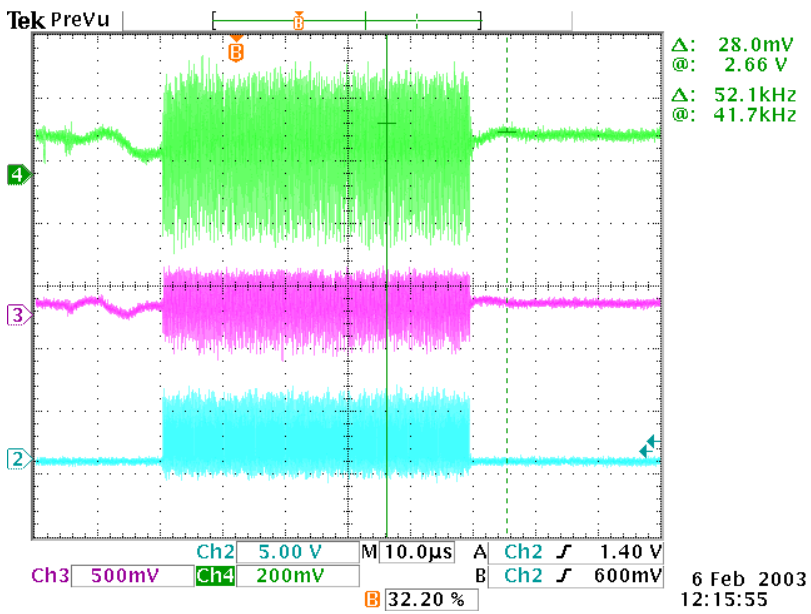
tot noise= 1.05

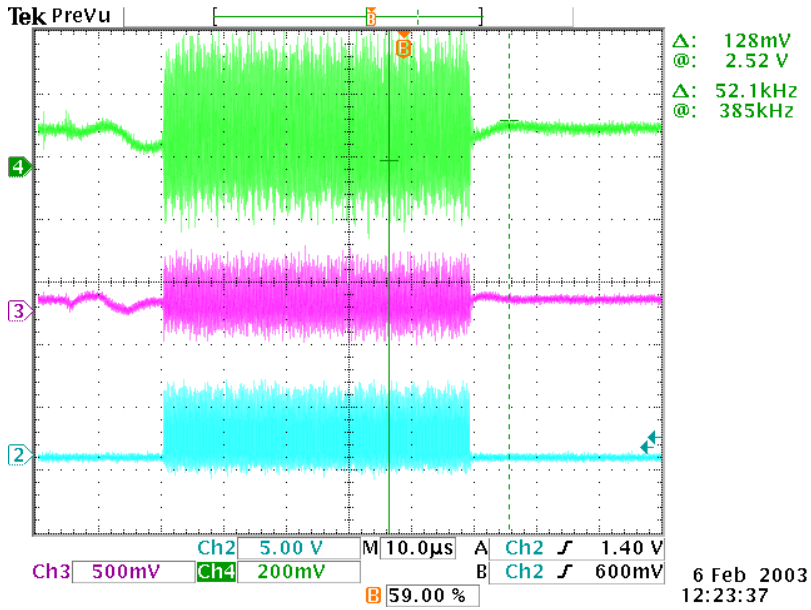
Diff noise= 0.64

C44= 0, C40=0

tot noise= 1.05

Diff noise= 0.64





C44= 33, C40=0

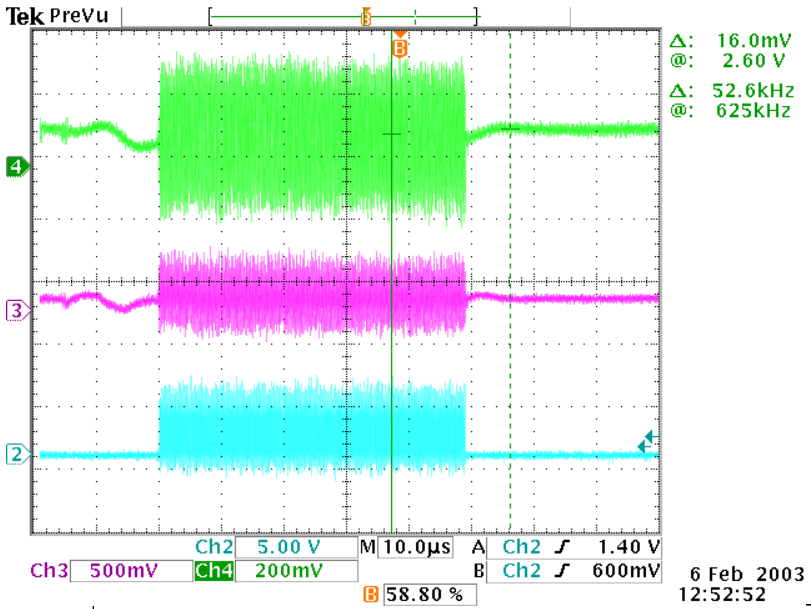
Tot noise= 1.06

Diff noise= 0.64

C44= 33, C40= 100

Tot noise= 1.08

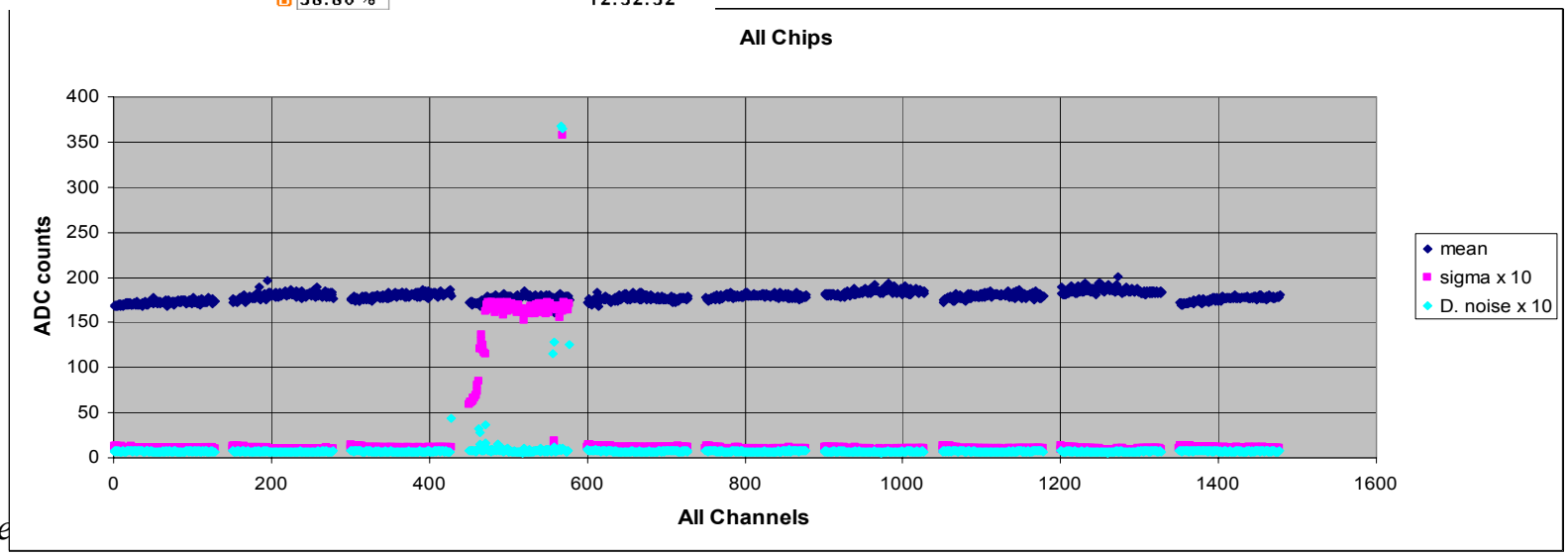
Diff noise= 0.63



Back to standard (33 µF for each:

Tot noise= 1.03

Diff noise= 0.63



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